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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/284,863	06/07/1999	FLEMMING FAURBY STENGAARD	459-303P	2909

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EXAMINER

YAO, SAM CHAUN CUA

ART UNIT	PAPER NUMBER
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1733

11
DATE MAILED: 01/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/284,863	STENGAARD ET AL.	
	Examiner	Art Unit	
	Sam Chuan C. Yao	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If the period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2001.
- 2a) ☒ This action is **FINAL**.
- 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-42, 44, 46, 48 and 50-84 is/are pending in the application.
- 4a) Of the above claim(s) 26-42 and 66-84 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44, 46, 48 and 50-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some * c) ☐ None of:
 - 1. ☐ Certified copies of the priority documents have been received.
 - 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group III in Paper No. 10 is acknowledged. The traversal is on the ground(s) that "The examiner's statements regarding Ross are based upon a misinterpretation of the disclosure of the present application, which relates to a hydrophobic fiber". This is not found persuasive because the recited claims of the elected group do not require the fiber to be hydrophobic (i.e. such an argument is NOT commensurate with the scope of the recited claims). In any event, it would have been obvious in the art to form hydrophobic fibers using the finishing composition taught by Ross. For instance, for a finishing composition comprising 5% antistatic agent, 15% polyethylene glycol, 1% emulsifier, and 79% tridecyl stearate, it is submitted that the resultant fiber is reasonably expected to be substantially hydrophobic.

The requirement is still deemed proper and is therefore made FINAL.

2. As for the newly submitted claims 66-84 are directed to an invention that does not relate to a single general inventive concept from the invention originally claimed for the same reason set forth in Paper No. 9 numbered paragraph 2. As further evidence that they do not relate to a single general inventive concept, the following recited limitations between independent claim 44 of the elected group and independent claim 66 of a newly added group of claims: claim 66 requires a "finish with an active ingredient content comprising 20-100% by weight of at least one water-insoluble ester ..." (emphasis added), while claim 44 requires "fibre carrying at its surface 0.01-1.0% by weight of the fibre of at least one water-insoluble ester ..." (emphasis added).

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Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 66-84 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 64-65 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 64 recitation of a WRC value of “at least 5 cm” (emphasis added) does not have sufficient support in the original disclosure. Note that this limitation now reads on a WRC value of say 50,60,70,80,90, or 100 cm. Claim 65 is also rejected for the same reason as claim 64 (note the recited WRC value of “at least 9 cm”).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 44, 46, 48 and 51-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross (US 5,525,243).

With respect to claims 44 and 51-58, Ross discloses a cardable polyolefin fiber, such as a polyethylene and polypropylene, which is coated with a finishing composition comprising an anti-static agent, a polyethylene glycol, an emulsifier and a lubricant, wherein the lubricant is selected from a non-water soluble alkyl esters such as a **tridecyl stearate** (col. 2 lines 36-45; col. 4 lines 39-54; col. 5 lines 9-15). Ross does not expressly disclose an amount of non-water soluble alkyl esters (**tridecyl stearate**) that is coated on the fiber. However, it would have been obvious in the art to coat the recited amount of non-water soluble alkyl esters (**tridecyl stearate**) onto the polyolefin fiber of Ross because Ross discloses *that "The amount of finish composition to be applied onto a synthetic filament is also dependent on the end product of the filament yarn"*, and further discloses using 0.5-1.0% or .75-1.25% of a finish composition (col. 7 line 40 to col. 8 line 33); and because it is well within the purview in the art to determine, by routine experimentation, a suitable amount of lubricant for fibers for the desired end-use of a resultant article.

With respect to claims 46 and 48, see column 8 lines 1-5 of Ross. It is understood that the fibers in the nonwoven web of Ross are bonded together.

With respect to claims 59-61, see column 3 line 56 to column 4 line 8. Note that, Ross teaches using phosphate antistatic agents (see column 3 lines 57-59). The recited formula is a well known phosphate ester or salt anti-static agent in the art.

With respect to claim 62, the recited materials are a well known friction reducing agents in the art. Note that Ross discloses the importance of reducing fiber friction, and also discloses,

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in a related prior art, various friction reducing materials such as waxes, silicone oil, etc (col. 2 lines 18-28, lines 56-62).

With respect to claims 63, see column 2 lines 18-28; and column 4 lines 1-8.

With respect to claims 64-65, the finishing composition of Ross comprises about 5-25 weight percent of antistatic agent, about 15-50 weight% polyethylene glycol, about 0-80% emulsifier, and the remainder is a lubricant such as a tridecyl stearate (col. 3 lines 33-43; col. 4 lines 40-54). Therefore, it would have been obvious in the art to form a fiber finishing composition comprising around 80 weight % of lubricant such as a tridecyl stearate, about 5 weight percent of antistatic agent, about 15 weight% polyethylene glycol, about 0 weight% emulsifier. Since a fiber is coated with a finishing composition which is mainly composed of a tridecyl stearate (i.e. 80 weight %); since tridecyl stearate taught by Ross is the same preferred material as Applicant evidence from the specification on page 12 lines 25-30 with an amount which falls on the upper end of a preferred finishing composition disclosed on page 11 lines 22-33; and since the amount of tridecyl stearate on a fiber using the above finishing composition is about .08 weight % ($.8 \times 1\%$ of finishing composition) or 1.0 weight % ($.8 \times 1.25\%$ of finishing composition), which is at least close (if not the same) as the upper-most value of 1% by weight recited in claim 44, it would be reasonable to expect that the recited hydrophobicity values in these claims, as measured by the WRC test would naturally flow from the teachings of Ross using the above finishing composition.

7. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ross (US 5,525,243) as applied to claim 48 above, and further in view of either Haffner et al (US 5,514,470) or Connell et al (US 5,509,142) or Willey et al (US 5,494,736).

It would have been obvious in the art to form a composite web to the nonwoven web of Ross as such is conventional in the art as exemplified in the teachings of either Haffner et al (col. 6 lines 10-18; col. 7 lines 17-31, lines 59-67; col. 8 line 36 to col. 9 line 9; abstract) or Willey et al (abstract; col. 6 lines 8-29) or Connell et al (col. 8 lines 37-67 col. 9 lines 39-49).

Response to Arguments

8. Applicant's arguments filed 12-05-01 have been fully considered but they are not persuasive.

In response to Applicant's arguments on pages 1213 regarding the hydrophilic nature of the finishing composition taught by Ross (because it uses limited amount of lubricant), while the present invention is directed to a finish which is hydrophobic; it is submitted that Applicant's arguments are NOT commensurate with the scope of claims 44, 46, 48 and 51-63. None of these claims require the finish to be hydrophobic. Even for the sake of arguments, such is required, it would have been obvious in the art to form a finishing composition taught by Ross which is hydrophobic in nature as explained in numbered paragraph 6 above. As for applicant's arguments on page 14 regarding Examples IVI; it is submitted that examples are merely for illustrative purpose only. It does not change the fact that, since Ross clearly teaches a finishing composition which comprises about 5-25 weight percent of antistatic agent, about 15-50 weight% polyethylene glycol, about 0-80% emulsifier, and the remainder is a lubricant such as a tridecyl stearate (col. 3 lines 33-43; col. 4 lines 40-54), using about 80% weight of lubricant in the composition would have been obvious in the art for reasons set forth above. It is worthwhile to note that, in example VI, the finishing composition comprises about 45% by weight of tridecyl stearate. This value falls within the "more preferred" finishing composition disclosed in the

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specification on page 11 lines 28-33. If the "more preferred" finishing composition comprises about 35-65% by weight of waterinsoluble ester forms a hydrophobic finishing, then the finishing composition disclosed in example IV should reasonably be expected to also form a hydrophobic finishing.

Note: on page 16 first full paragraph, Applicant indicated that all claims in Groups I and II were cancelled. However, on page 1 of Applicant's response, Applicant only instructed to cancel claims directed to Group II. Therefore, all claims directed to Group I is still pending.

Conclusion

9. WO 94/20664 (see page 15 lines 17-25) and Harrington (US 5,545,481; see column 3 lines 45-61; column 4 lines 12-29) are cited showing an anti-static agent comprising a phosphate ester or salt.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREEMONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (703) 308-4788. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7115 for regular communications and (703) 305-7718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-651.



Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

scy
January 9, 2002